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CRUMPTON, President — W. A. BOOTH, Secretary — P. P. REYNOLDS, Treasurer

OFFICIAL PROCEEDINGS

Meeting of January, 1922.

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ORPORATED
OCTOBER
1913

Canadian Railway Club

MONTREAL

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CANADIAN SOCIETY OF CIVIL ENGINEERS
1921

CONTENTS

Report of January Meeting and paper and discussion

on

"Prevention of Freight Loss and Damage."

AUG 19 1943

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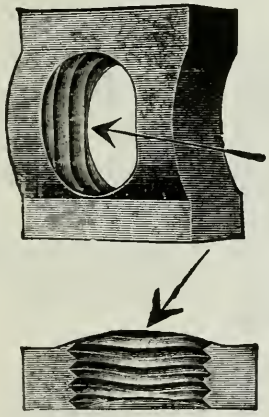

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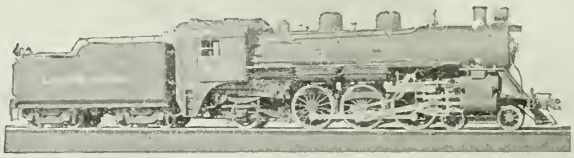

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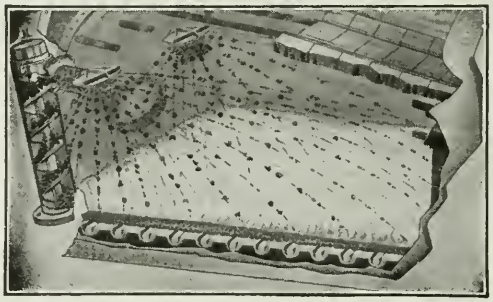

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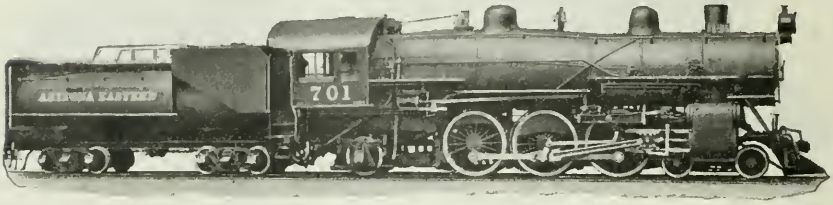

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W. A. BOOTH, Secretary, 53 Rushbrooke Street, Montreal.

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PROCEEDINGS OF THE CANADIAN RAILWAY CLUB

Windsor Hotel, Montreal,
January 10th, 1922.

Chairman (Mr. A. Crumpton) :—

Gentlemen, will you kindly sign the attendance cards which you will find on the chairs, so that the Secretary will have a correct record.

We will assume that the minutes of the last meeting have been read. They were submitted to Mr. A. E. Macmillan, the speaker at our December meeting, who lives in Atlantic City, for any revision that may have been necessary, and the proceedings will be mailed to you in a few days.

MEMBERS PRESENT.

Crumpton, A.
Atkinson, F.
Allan, T. A.
Alexander, W. I.
Ayers, J. A.
Badour, G.
Barry, S. W.
Barton, A.
Benger, F.
Bergen, F.
Bermingham, T. C.
Benard, J. B. H.
Bessette, O. P.
Brandon, J. D.
Blumenthal, L.
Branston, W.
Brazier, G. W.
Britton, G. H.
Buchanan, R. G.
Buckle, W. E.
Burns, J.
Burns, W. J.
Cadieux, A. H.
Cameron, H. D.
Clayton, J. S.
Clibbon, J. T.
Collins, F.
Collins, T.
Cowap, W.
Dohm, J. T.
Foley, E. L.
Fraser, J.
Giroux, G.
Gardener, K. V.
Goss, R. W.
Guest, A.
Hampshire, A.
Hanson, L. J.
Harrigan, H. C.
Hellyer, G.
Hendry, J.
Hibbs, W. J.
Horn, B. T.
Hope, T.
Hunter, W.
Inns, G. A.
King, A.
Kinnear, D. M.
Krauser, W. G.
Lachapelle, J. D.
Lowe, W. S.
Mackie, R. L. D.
Matheson, A. G.
Miller, M. G.
Millington, J.
Mitchell, R. L.
Moore, F. W.
McDonald, A.
McFarlane, J.
McVicar, R.
McMillan, E. S.
Naylor, H. R.
Neale, G.
Needham, R. J.
Phillips, F.
Phillips, G. L.
Ogden, J.
Pierpoint, F. H.
Prevost, L. E.
Primeau, J. L.
Prouse, W.
Quinn, E.
Rosever, W. H.
Ross, J. D.
Serchuck, H. W.
Shaw, J. A.
Skene, W. H.
Spalding, E. C.
Spry, S. H.
Starke, A.
Stranger, R.
Stewart, K. C.
Stewart, W. H.
Symmes, H. H.

Taylor, S. G.
Towne, A. C.
Thorburn, C. D.
Turnbull, W.
Viberg, E. R.
Van Dewal, L. J.
Ward, G. M. T.
Wheatly, J. H.
Williams, L. A.
Wilson, Geo.
Wilson, G. M.
Wilson, H. A.
Winship, S. B.
Winterrowd, W. H.
Yost, W. H.
Booth, W. A.

and others

Chairman:—

The Secretary will read the list of applications for membership. These applications have been passed on by your Executive Committee.

NEW MEMBERS.

Brookes, J. H., Master Mechanic, C.P.R., Chapleau, Ont.
Cadieux, A. H., Asst. to Chief of Dept. of Investigation, C.P.R., Montreal.
Coe, D. W., General Sales Manager, Canadian Mead Morrison Co., Montreal.
Harrison, W., Man'fr., Excel Brass & Aluminium Co., Montreal.
Jeffries, Geo., Freight Claims Agent, C.P.R., Montreal.
Jenkins, G. H., Asst. to Gen. Purchasing Agent, G.T.R., Montreal.
Jones, C. H., Manager, Order Dept, Independent Pneumatic Tool Company, Montreal
Kidger, B., Salesman, Independent Pneumatic Tool Co., Montreal.
Mayo, H., Clerk, C.P.R. Angus Stores, Montreal.

Chairman:—

There is one matter I wish to speak about, i.e., a letter which has been addressed to the Secretary by a large firm in Chicago which brings up the question of advertising.

I want to say that this Club prints a monthly magazine and we are open for advertising matter. Some of the members have been active in procuring some, and we would like any firms who have advertising to get in touch with either the Secretary or Treasurer, as we would be pleased to have further advertising in the magazine, as it is practically our only source of income.

Tonight, we have for discussion a subject which is a little unusual—PREVENTION OF FREIGHT LOSS AND DAMAGE. We have the pleasure of having with us Mr. Joe Marshall, special representative Freight Claim Prevention, American Railway Association. Mr. Marshall will now address us.

Mr. Joe Marshall:—

Mr. Chairman and gentlemen of the Canadian Railway Club. I do not suppose it is often that you have the

opportunity of hearing a claim man speak to you, you will understand, the claim man is in the position where he is forced to be continually telling the other fellow what he ought to do. The reason for that is, because he is continually paying out money for the things we fail to do in railroading and from that fact follows the fact that he tries to show the right way to do it. When I was invited to discuss the subject of Claim Prevention before your Club tonight, I tried to cover every angle of the subject as we see it and to cover the ground I put it on paper so that I would not fall down. The light is somewhat bad for the exhibition of the charts I have here, but I believe what I have with what I will try to say, will give you an idea of the proposition so that you can see just what the claim man is trying to point out. Unfortunately we have not the benefit of the statistics for 1920 as they are not as yet off the press, but the Bureau of Statistics at Ottawa has the 1919 figures complete, and from that we get some figures which will show us why we ought to try to save money in railroading.

Mr. Marshall preceded his paper with the following:—

Quoted from the Dominion Bureau of Statistics 1919 report, showing the following increases in operating expenses, 1920 figures not being as yet available.

Salaries and wage bill increased 53.0 per cent.

Maintenance of ways and structures increased 59.5 per cent.

Transportation costs increased 25.4 per cent.

Maintenance of equipment increased 49.4 per cent

Total operating expense increased by over 110.0 per cent in 5½ years, 1914-1919.

That we have 173,729 employees—1,855 are officers—each one can do something, and the purpose of this talk is to show some of the things that can be done to reduce claims and how this will carry down other items of expense.

Claim prevention is not a new thing on individual railroads. It has been the subject of attention for many years, but as a co-ordinated activity of a great number of railroads, it is a new thing.

That the Freight Claim Association, after amalgamation with the American Railway Association as the Freight Claim Division of that organization, special representatives were appointed to devote their entire time to the work of

studying claim causes and their prevention. Part of this work contemplated a bulletin service which has been in effect for the past year, this service reaching all branches of the railroad field, including shippers' organizations. Supplementing this, a wide publicity campaign is in effect. Every effort is made to present definite ideas to secure co-operation for the correct handling of freight.

A series of charts were used to illustrate the talk, as follows:—

Chart 1, Canadian per cents.
Chart 2, U.S. operating accounts
Chart 2½, Canadian operating accounts.
Chart 3, Claims and wholesale prices.
Chart 4, Claims, car shortages and surpluses.
Chart 5, The claim dollar.
Chart 6, Colored graphic—cause proportions.

One of the charts showed the following principal causes of claims:—

(a) Unlocated loss entire package.....	14.4	per cent.
(b) Other unlocated loss.....	8.0	" "
(c) Unlocated damage	14.6	" "
(d) Rough handling of cars.....	14.2	" "
(f) Defective or unfit equipment.....	10.5	" "
(i) Delay	10.4	" "
(j&k) Robbery	10.0	" "
(n) Wreck	5.1	" "

The largest items among the commodities are fresh fruits and vegetables, clothing, dry goods and notions, grain, coal and coke, meats and packing house products, flour and mill products, tobacco, cigarettes and cigars, live stock, automobiles and accessories, furniture, machinery and hardware, boots and shoes, sugar, appearing in the order of this importance, beginnig with 13.5% of the total down to 2.7% of the total payments.

These commodities take care of 34% of the Claim Account and comprise 23% of the total tonnage carried by the railroads of the Dominion.

If 3% of the total transportation expenses go for loss and damage, and 35% of this loss and damage comprise the eight general commodities, and these eight commodities constitute 23% of the total tonnage, it can readilly be seen that it would not require much concentrated effort on a comparatively small proportion of the entire traffic to make a large impression upon the Claim Account.

In order to give you a picture of the relative proportions of each of the principal causes for claims to the total claim expenditures, we have A Chart to present the claim dollar for 1920, divided into sections to represent each cause. I will treat each of these causes after going back to A Chart, which shows how the Canadian operating expense is divided, and why each department of the railroad is interested in claim prevention.

The final figures for Canada and the United States is $125,836,948 as the Loss and Damage Account for 1920. There is reason for us to become interested.

Observe from this chart that 418, Loss and Damage to Freight, equals 452, the Salaries and Expenses of Clerks and Attendants. He who thinks he needs more clerks, is he doing all he can to help claim prevention? It will cover 227, 247 and 249, Station and Office Buildings, all telegraph and telephone lines and signal and interlocker expense, and if you added 404 and 407, the cost of Operating the last two facilities, you would only exceed the claim account by a million dollars.

The Loss and Damage account will pay for accounts 301 and 302, Superintendence and all the shop machinery account that year. It will almost pay the entire Traffic Department's expense, Superintendence, Outside Agencies, Advertising, Insurance, Stationery & Printing—think of that! A sum equal to what it costs the railroad to secure its traffic is paid out for mishandling it after it is secured —is the Traffic Department interested?

Loss and damage exceeds Account 371, Superintendence in Transportation. It exceeds 372 and 376 put together, which is the cost of dispatching trains and all station supplies and expenses. It will more than pay the wages of all the yard enginemen in the Dominion. It will almost pay the fuel bill for the yard locomotive. It will pay the yard enginhouse expense, plus the yardmasters and all the clerks.

It cost twice what bureaus, advertising and law expense cost during 1919 and half as much as the bill for ties. It would more than pay the cost of supervision of maintenance of ways and structures and maintenance of equipment combined. It will almost pay the bill for rails.

It will come within a half million dollars of paying the

tax bill. It will pay the insurance bill for every general department, and you could add the entire stationery and printing bill for all departments of every railroad in the Dominion, and still have over a million dollars left as waste.

This chart gives you a graphic presentation of the relative proportions of the different items of expense, and I think, shows that every man in every department is interested in reducing the claim account.

Now let us see what each man can do about these things. man can do about these things.

The largest single item is Loss of Entire Packages. Add to this Robbery of Entire Packages and you have about 20% of the total claim payments. The lost package problem has to do with keeping the waybill and freight together throughout the journey and then making proper delivery to the right person and using extra precaution about this delivery in the event the freight has not been kept with the waybill. A lot of detail must be watched to bring this about, but it is worth any effort devoted to it.

In nearly every case, a lost package is nothing more than a lost record. If the record shows what happened to the box the package is not lost. So, to find lost packages, find where the record stopped. That is easier said than done under present day conditions, but we will never improve unless we keep after these things.

Anyone investigating this subject will find little difference between the first cost of right and wrong methods of checking, and a big difference in claim cost when those in charge get the spirit of the thing, and, of course, the man in charge must have this spirit before it can be transmitted to the rank and file.

The Committee on Freight Claim Prevention is now preparing a uniform writeup of methods, which, if followed, will tend to reduce short package payments.

It is hoped this formula will be ready for distribution within a short period of time.

The next largest item is Unlocated Damage. This is a damage not explained by investigation. Freight going into car in good condition and coming out at destination damaged, specific cause unknown, but influenced by the following:

Strength of package or crate
Method of stowing in car
Weight of load in car

Mechanical condition of the car
Position of the car in train
Length of the train
Length of time car enroute
The degree of handling car receives
In the train and in the yards.

This subject can properly be hooked up with rough handling of cars, which is the next largest item. We know from what we see out in the field that a large portion of our damage is due to the quality of the handling a car receives. Opinions differ on what constitutes rough handling.

From this Chart we see Freight Train Car Repairs $29,938,025. This is 8% of the total Operating Expenses. It is certain that claim prevention will have an important bearing upon reducing this item, and every operating, transportation and mechanical man is interested in making that reduction. At the last annual meeting of the Freight Claim Division, on Prevention Day, Mr. J. A. Pilcher, Mechanical Engineer of the Norfolk & Western, delivered a talk on this subject, the burden of which was, that cars equipped with spring draft gears must not be brought together at a speed greater than two miles per hour at time of impact. He chose spring draft gears on the theory that we must bring the force of our handling down to meet the strength of the weakest link and then he suggested we cannot continually make heavier cars to meet heavier handling, and that men must learn to ease up and not hit cars hard just because they look like they will stand it—repeated drops of water will wear away granite.

Those who may be interested in Hr. Pilcher's talk, which we have reduced to writing, can secure it for the asking.

To answer a thought which may arise in the minds of some, I want to draw a distinction between switching at two miles per hour and coupling at two miles per hour—two different things. If an engine foreman can switch fast and not damage the scenery, he is a good man. If he can so line up the work that every member of the crew understands what the other fellow is trying to do, and between them they have their speed down to two miles per hour when the cars come together, he is a good prevention man. It is worth study in every yard as shown by the claim account and the car repair bill.

The next largest item is Defective or Unfit Equipment,

to which we can add Wrecks. Over 50% of any activity directed to any of the four items just mentioned will influence for good each of the remaining three items. You can readily see why it is so—all of them together account for about 40% of the total claim expenditures.

With this we can keep in mind that Maintenance of Equipment taking 23% of the total Operating expenses will find reduction in proportion to the effort devoted to reducing Transportation Account 418 insofar as it relates to Unlocated Damage, Rough Handling, Defective Equipment and Wrecks, or Derailments as the operating man likes to call it.

Therefore, from what I have just said, we have rough handling causing damage to freight, damage to equipment, which results in leaky roofs, sides, etc., impairs the running gear or brake equipment and places the car either on the rip track or in line for replacement.

What can we do on this? My first thought brings me back to the committee arrangement mentioned before where the men can find occasion to discuss better methods; where one switchman can talk "turkey" to another switchman about his signalling methods and bring about a better understanding of signals, and the art of giving a signal so the other fellow will understand it and not come down for three car lengths when he had but two to go; where a conductor can tell an engineer what happened on the rear end and not start a fight about it. You could not put one engineer in the cab to show something to the other fellow, but he could do it at meetings and get away with it and thus be of help to the traveling engineer, trainmaster or road foreman of engineers, is one is on the roll.

Train and yard men can tell the car men about bad hand brakes, and the car men need not hesitate to tell the switchmen about pulling air hose with the engine and what that leads to. This and a lot of other things will not be done where meetings are held, because a fellow will not do these things when he is told about them at meetings. These meetings are the greatest kind of help to superintendents, trainmasters, yardmaster, or other staff officials in keeping abreast of things that create claims and enlisting the help of the rank and file in getting right things done in the right way, and at the right time.

Here are some of the things for discussion with the idea of using them with variations to suit the conditions in each yard.

Restrictions as to commodities that will be sent over humps.

Restricting the number of cars that will be handled in one cut; some restrict to 15 cars, others 20 cars.

Discussing signalling methods to avoid misunderstanding and to learn the best method for each particular yard. The man on the engine knows the number and weight of cars, but he does not always know how far he is going.

Shall the engineer take signals from the engine foreman only?

What does a man going from one yard to another know about the interpretations applied to the terms used by switchmen? When it is used, is the wash-out signal a quick stop, or a slow sign?

What is behind the failure of couplings to make—plenty of room for discussion here.

What is the best brake equipment for switch engines, straight air or automatic?

To what extent are trains classified to reduce switching en route?

Do enginemen know the effect of releasing brakes on long trains when running at low speed? Many fruitful angles to the brake question and a wide field for discussion.

Brake pipe leakage causing trouble with air brakes—much of this results from pulling air hose apart with the engine. Every trainman ought to uncouple the hose and not simply allow the engine to pull the coupling apart. A "Live" committee in any terminal will soon put a stop to that practice.

Stopping trains by applying air at rear end, either by opening conductor valve, angle cock, or tail hose is another practice that would be discouraged.

How much time should be allowed for the inspection of train after being made up? Is enough time being allowed in any particular yard? It is said stretching trains entering or leaving terminals is a great help to car inspectors and enables them to test the air in the least possible length of time.

The question of the proper place in trains for old and weak equipment is a "live" subject which should be kept in the minds of yard men at all times.

Reporting bad brakes and hand brakes, and long brake chains, for proper corrective measures will help the rough handling account.

Also checking yard delays to reduce the extent of handling and opening merchandise cars for inspection of condition of load before or after lined up for road.

Yard air testing plants connected up with freight houses, team tracks, etc., where practicable, will be of help. With this goes the question of triple valve cleaning, oiling, ring adjusting, etc.

Among the aids to supervision in this work can be mentioned—

The flood lighting of yards
Conductors' air-brake card.
Report of draw-bar failures
Report of knocked down drawheads
Report of yard damage.

These reports to be followed up with a view of correcting the underlying causes.

Out on the road we have a wide field for educational work with train and engine men on such subjects as,

Negotiating Grades
The Control of Slack Action
Uncoupling engine before making water tank stops
Bunching slack and stopping trains before entering switches
The General subject of Starting and Stopping
The Reporting of Train Line Leaks
Supplying Suggestion Cards for use of train men in reporting prevention matters.

Then there is the matter of getting the men to visit the air brake instruction car, where one is used.

At stations we have the matter of methods of pulling and setting house and team tracks, especially where partly unloaded cars are involved and the problem of watching the traffic volume to provide as many set out cars as possible to reduce merchandise handling—the less handling, the less claims.

The above are a few things having a bearing on unlocated damage and rough handling. Some of the matters which must be gone into, if we are to talk rough handling to the men in the field, because it is necessary to neutralize the excuses which are offered to explain such failures, thus clearing the way for an intensive campaign among train and yard men.

A good plan, where it can be worked, is to choose certain engineers who are willing to place their minds on the subject, to study train handling; make a write-up of their

observations and circulate this to employees. The same can be done with respect to other employees writing from their standpoint, such as conductors, yard foremen, car foremen, etc.

Claim prevention calls for education and co-operation. We must educate ourselves and the other fellow. There are conflicting opinions as to what constitutes education for the purpose of preventing claims, but we can call it education in good service—it is nothing more.

What we do to prevent rough handling will, of course, reduce the number of derailments and reduce the money —after an accident does occur the big thing is to salvage as much freight as possible. To this end, wreck outfits should be equipped with tarpaulins and cooperage supplies to take care of any situation, and as the Car Department usually looks after picking up wrecks, the wreck master should be a member of some committee, at least he should be kept posted on claim prevention matters so he will be interested—so he will never fail to open a car which is lying on its side—get his men inside and re-arrange the freight in such a manner as to cause the least damage when car is righted. He should know exactly what the car contians before taking hold of it with the big hook. It may burst open. If the freight inside the car is arranged for such a contingency, or shifted in position for the proper righting of car, a lot of money can be saved.

The Safety Department of a railroad can consider freight claim prevention along with its safety work. I do not suggest here that the work can be mixed, but simply want to show how they are interested because we, as railroad men, ought not to allow a bad practice or condition to go unnoticed, particularly when we can reinforce our argument from two standpoints.

Here are some examples:

A defective running board or apron over which freight is trucked might go off under a truck; if so, personal injury is possible, plus damage to freight.

Leaking tank cars cause loss of oil and danger of fire, explosion and personal injury.

Dragging arch bars, or brake beams, can be talked from both standpoints; so can overloading of coal on tender or coal cars; so can holes in freight platforms. Also bad brakes and methods of signalling in yards.

These are just a few to show the wide range of overlap

in the work of men who may be looking after safety first as well as those who may have sole charge of doing things to prevent freight claims.

All work to eliminate rough handling in transit and defective equipment combines safety first with safety to freight.

It will be observed from this chart that Delay is another large item. The rule should be to keep freight moving—it is the slow drag that keeps moving that gets freight over the road.

The remedy lies in terminals, a good daily yard check and a "live" prevention committee will solve the problem. Other causes such as hot boxes, resulting in set outs en route, is a matter of proper journal packing to be looked after by the Car Department.

In talking about delay, we must not overlook the dispatcher. Keep him posted on claim expenditures, particularly the trick dispatcher. He is the man who puts the stuff over the road.

Another point to be considered is that anything which reduces delay will reduce per diem. Many disputed points on claims would be decided in favor of the freight claim agent, were it not for some delay along the route. Delay means increased hazards of all kinds.

Any road with an Agricultural Department may get them interested in crop conditions and field diseases in connection with fruit and vegetable loss and damage. Big opportunities await the railroads in this field of possible prevention activity.

It will be observed from this chart that defective and unfit equipment is one of the large items. In presenting this problem to you, I can do no better than state it as it appears in a report the Freight Claim Division has just drawn up for the consideration of the Mechanical Division, as follows:

For seven months ending March 31, 1921, Defective and Unfit Equipment Account summed $5,876,056, or 9.9 per cent of the total payments, divided as follows:

Car Load	$5,322,770
Less than Car Load	553,286
Total	$5,876,056

against total payments divided as follows:

Car Load	$32,573,286
Less than Car Load	26,996,110
Total	$59,569,396

It may interest you to know the principal commodities represented by defective equipment payments:

	Car Load	Less Than Car Load
Grain	$1,765,462	$ 53,202
Coal and Coke	1,076,387	17,250
Flour and Mill Products	901,923	95,397
Sugar	394,652	33,170
Fresh Fruits and Vegetables	103,672	8,388
Cement, Lime, Sewer Pipe, etc.	74,985	8,456
Live Stock	56,282	1,220
	$4,373,363	$217,083
	217,083	
Grand Total	$4,590,446	

As a matter of information, we show the percentage of defective equipment payments charged to specific causes, as taken from figures compiled at different times by individual roads as a guide in determining the relative importance of the subjects detailed in what is to follow:

Defective equipment sums 9.9 per cent of the total payments, or on basis of $10,464,000 per year at the present rate of payment of $5,876,056 in seven months.

Wet through the door, will account for 5 per cent and up of the above figures, depending upon the rainfall and the kind and nature of storm encountered, as such damage results from wind blown rain only.

Leaky roofs will take care of 30 to 60 per cent, depending upon the territory and the weather.

Nails and bolts will account for 4 to 6 per cent.

About 1 per cent of the above payments can be charged to dirty floors. The average for six selected years on two roads was .859 per cent.

In discussing defective equipment losses as applied to grain and coal, we must consider the item of "Unlocated Loss." This is a loss the specific cause of which was not

determined by the investigation. This item is influenced by defective equipment.

The payments on grain for the seven months were as follows:

Defective Equipment	$1,765,462
Unlocated Loss	573,053
Total	$2,338,515

Under the method described above, this sum will roughly divide as follows:

25 to 35 per cent, scale discrepancies,
5 to 14 per cent, defective lining or siding,
5 to 6 per cent, defective grain and other doors.

The percentage varies on different roads, depending upon the conditions.

It is thought mechanical men can improve the method of fastening the grain door as a supplementary to their action in improving the method of securing the sheathing at the side sill.

Coal payments divide as follows:

Defective Equipment	$1,076,387
Unlocated Loss	356,621
Total	$1,433,008

Using the same method, 25 per cent of this can be charged to scale discrepancies.

While the enormous volume of this traffic dwarfs the claim payments, still it is one of the most troublesome items in the Claim Account.

In these days of double loading, it is difficult to accurately determine how much of our so-called "Rough Handling," "Unlocated Damage," and "Unfit Equipment" damage to carload sacked goods is due to the many obstructions now appearing on the inside of box cars, or how much might be saved by building cars with smooth interiors, such as is provided in refrigerator cars.

The loss and damage on carload Flour, Mill Products, Sugar and Cement summing about $300,000 per month, gives an indication of the value to be derived from a study of the question as applying to these and other commodities —bulk grain, for example.

During the seven months $444,229 was paid account damage to live stock. The physical condition of stock cars has an important bearing on this item, particularly in reference to horses and mules. As a "sidelight" on horse and mule damage, it may be mentioned that bruised eyes result from striking obstructions in the roof, resulting from the habit such animals have of throwing their heads.

One phase of defective equipment affecting claims concerns the transfer of bad order loads. One large road making a check for a 30-day period reports 500 such cars transferred at a labor cost of $11,000 in addition to the claim hazard.

This cause, of course, is influenced by unfair handling, yard damage, etc.

On the theory that the less handling freight receives, the less damage will occur, it is thought that car foremen could well give consideration to the matter of reducing this handling by an inspection to determine methods of running a car without transfer, taking into consideration—

The nature of the load—
The condition of the load—
The length of the haul to destination—
The possibility of temporary repairs.

On "Prevention Day" (May 18, 1921) during our 1921 annual session, the following action was taken in connection with consideration of the above subject:

"That report be made to the Mechanical Division of the A.R.A. that it is felt that losses due to defective equipment are of such extent as to merit consideration by that Division with respect (1) to agitation for extensive repair of equipment; (2) need for drastic regulations as to selection of equipment for grain, flour, mill products and coal; and (3) Enforcement of rule for stenciling of bad-order, leaky-roof' cars."

Every railroad man should be interested in making the railroad successful. He should do what he can to prevent waste of railroad revenue in satisfying loss and damage resulting from failures in transportation.

All of this expenditure is not preventable in the ordinary sense of the term, but the claim man, paying this money day after day, sees so much that he thinks and much which he knows can be prevented, that the Freight Claim Division of the American Railway Association is placing this subject before those who we are sure will be able, from their own know-

ledge of what is right in this particular field, to reduce this waste after the claim man points out the causes with his idea of the remedy available.

I have touched upon methods of interesting the rank and file, but they cannot be expected to go any further in this work than their opportunities will permit. To produce this opportunity the supervising heads of all divisions of each general department of railroading must be interested. Previous remarks have taken care of the important features of the Operating and Mechanical Departments. There are a few, additional, however, of equal importance, and I shall attempt to show how they are interested in this question and how they can help by encouraging their men to watch those features of their work, the wrong handling of which spells claims.

The Car Department can do much to prevent the use of cars unfit for the class of freight to be loaded. Equipment may be scarce, but a good system of carding cars, showing class of freight they are fit to carry, and a proper interest by yard men, will always produce the few good cars to be found in every yard to load the few high-grade commodities loaded from that place every day.

In theory, when a merchandise house is set for the day, every car is one fit to carry merchandise. Any cars found unfit must be used as they stand setout, or fixed up. We know it doesn't pay to break up a house setting, so the tendency is to use the car. This car, if used, will be loaded to some freight house at some other place, perhaps a small place where the house foreman must make his own empties. In any event, wherever it goes, it likely will be unloaded at a point where it at once becomes another merchandise car, and this may go on for weeks and months until finally the car gets out of the merchandise channel and is set for the loading of mill products or other commodities.

The point here is that a car once in merchandise service is likely to remain in that particular channel for a long period of time carrying a new load each few days. If the condition of that car is such as to produce claims, it is of more than passing importance that it be put in shape before it starts out. The Car Department can do much to get this car in shape, even if by use of temporary repairs.

The car may show daylight. Temporary repairs to missing sheathing will save damage.

Perhaps it will be possible to draw from doorposts protruding nails left from bracing previous loads.

Perhaps they can replace bad hasps or locks, as a car in that condition is a standing invitation to be robbed each time is loaded. Perhaps this can be done on all cars which reach the rip track for any purpose.

Card leaky roofs so they will not be used for high-grade commodities.

The Purchase and Storage Department can help when buying new equipment by following the Mechanical Division's recommendation and help get money-saving devices into effect.

They could have car builders cut off bolt ends where they protrude beyond the nut on inside of cars.

They can have their men represented on prevention committees so they can learn the many ways of co-operating with the freight claim agents, particularly on roads having supply train service and reclamation or testing plants.

They can use their scrap material, empty corrugated and other containers for use at large stations which need it for coopering purposes.

If they have a treating plant, they can see that treated ties are not loaded in good box cars.

They may be able to induce manufacturers to discontinue nailing the floors of four-wheel warehouse freight trucks. If these floors were bolted, freight would not be damaged by nails which work up in service.

They could look into the seal question to be sure that agents do not carry too large a stock of seals. If an agent has much more than a 30 days' supply, there is a big chance for misuse.

The Telegraph Department can help by watching advance notices on stock, rush car orders concerning live stock and perishable, and in the matter of mailing diversion or stop orders, if, through error, that is done.

They can check against errors in transmission of consists, icing reports, diversion orders, etc.

They can help educate operators to keep dispatchers posted in detail when a train is being delayed at their station.

They can help educate operators to be on the look-out for dragging brake rigging, or hot boxes on passing trains.

The Traffic Department can help educate shippers to keep posted on car loading rules and classification requirements.

Anything they can do to induce large receivers of freight to maintain a written record of all freight delivered to them

without regular billing so the claim agent can check against this record in handling claims for short packages, will go a long way to reduce short package losses.

They can help shippers get interested in existing laboratories for the study of proper box construction. Many shippers do not know that the average box fails first at the nailing points—that a few more nails in the right place makes a stronger box.

They can encourage shippers to study the causes for their claims, recording them by causes and specific articles, by having customers or salesmen report conditions as determined at destination with apparent cause, so they can learn what may be necessary to ride it safely—the railroad will help in this.

They can get the chambers of commerce interested in spreading the gospel of careful marking and packing, and in the study of how the shipper and carrier can handle freight without damage.

They can advertise claim prevention along with passenger and other advertising, because claim prevention means good service, and the claim account which represents failure in service sums as much as the entire expense of the Traffic Department as just shown.

The Police Department, of course, is engaged in property protection, but I often wonder if they are intensively pushing the matter of correct seals and seal records, bad doors and door hasps. Their influence will go a long way to keep this situation in the clear. They can't do business without a good seal record and a proper facility upon which to apply the seal.

If there is a Scale Department on the railroad, anything they can do to help keep country wagon scales in proper shape, by educating owners in their use and upkeep and by doing the same thing with elevator people and other users of scales, will be of great help. Careless weighing and scale maintenance is the crime of modern business.

My call for this meeting said, "use 5000 words," and I am afraid I have exceeded that, but I do not want to close this talk without saying something about express.

In the general work to reduce costs, both the railroad and express employees have found they must work together to get the best results. An express man should be on every local prevention committee.

In many instances, the same problems must be overcome;

for example: On ventilation and refrigeration — on hand freight or express—short packages—it is just as important to police express resting on a truck as it is to police freight resting on a platform. It is just as important to keep express trucks from contact with trains at stations as it is to watch baggage trucks.

Express must be protected from the weather the same as baggage and freight.

Delay problems apply to both. The same study of classification requirements are necessary. Packing, marking and billing have many points of similarity.

Express is carried by and so is freight—both the result of the same fundamental cause.

Yardmasters and engine foremen are as interested in switching express cars as freight cars, and for the same reason—to avoid delay and rough handling.

The Car Department is interested in defective express equipment the same as freight cars. An express car can be set out en route the same as a freight car and for the same reasons—defective running gear, hot box or other bad order condition. The Baggage Department is in on this, because often one car is used for both express and baggage, and the same general troubles encountered by baggage is experienced with express.

Good containers are of importance to both branches of the service.

Particularly can the two branches co-operate on the question of preventing pilferage and robbery.

I will not take the time to give further details which will quickly develop from any discussion of the points here menttioned, but will add, by all means, express and railroad men should work together locally and nationally in the effort now being made to reduce transportation expenses, and every branch in transportation service get busy with al the means at their command to produce the best service possible at the least cost.

I thank you.

Chairman:—

Gentlemen, we have here a paper which is certainly food for thought, and I hope, for discussion. Mr. Marshall shows that evidently we are not doing so badly in Canada, but I am sure there are a number here who will say something

as to what is going on here in connection with Claim Prevention. The meeting is yours. Mr. Jackson of the Canadian Pacific Railway is here and I know will have something to say on the subject.

Mr. G. C. Jackson:—

I did not come here tonight prepared to say anything on this subject, or with any statistics to give you, as I knew how thoroughly it would be handled by Mr. Marshall. I have heard this subject discussed many times, and at many places, but never so comprehensive or illuminating an address as Mr. Marshall has just given us. He has left very little to say, having dealt as thoroughly with Canadian as with United States conditions. His system of charts, I think you will agree, gives us a wonderfully clear idea as to the relations of Loss and Damage to other expenses. The statements which he has shown give us a long list, and a great variety of causes from which the Loss and Damage arises, but we will find that on analysis, these are condensed into practically two causes; namely, robbery (stealing very largely I am sorry to say by employees of the carriers) and gross carelessness and lack of interest on the part of the employees who do not appear to realize that they have any responsibility for safeguarding or caring for the freight entrusted to them.

The old conception of a railroad man as a guard (which in fact they are called to this day in England) has been entirely lost sight of; and, a general improvement of the morale of the railroad employees, who actually handle the freight, is an imperative need at present.

Mr. Marshall has spoken of the benefit which might accrue, through the subject of Loss and Damage being discussed at meetings of the trainmen, switchmen, and others, and I heartily agree with this view. The subject is frequently discussed at meetings of officers, and statements of the conditions are sent to and examined by the officers, but the men who are actually responsible for these losses, and this damage, are not sufficiently impressed, or informed, as to the result of their bad work.

A recent campaign, carried on in the United States and Canada, called the "Perfect Package Campaign" has produced very astonishing results, and confirmed the opinion which I have just stated to the effect that the Loss and Damage is almost always attributable to bad work, of one kind or another, by the railroad employees, because this "Perfect Package Campaign" gave an opportunity for criticism; and, even refusal of any package offered to the

carrier in bad condition, or not sufficiently strong to withstand the ordinary incidents of transportation. Yet the figures showed that the percentage of LCL shipments questioned, as being in bad condition, was less than two per cent, in fact one per cent would be a fair average figure, which does away with the impression that a carrier is often asked to handle packages in very poor condition, and does not get a fair chance of delivering them at destination intact. In the past, an agent has hesitated to refuse or even question the condition of a package, knowing that the shipper might take it over to the station of a competing line, and have it accepted; but in this campaign, all lines were taking the same action and consequently there were no restrictions on the criticism of any package offered.

We are all working in hearty co-operation with Mr. Marshall's committee, which I think has done a great deal to improve conditions; and, the numerous suggestions emanating from that committee, which has been adopted by all the roads, will undoubtedly result in a steady reduction in the Loss and Damage accounts, but as it stands at present, Mr. Marshall's figures showed that the carriers are accepting about ninety seven cents for every dollar which they earn, and in these days when the thirty second part of a cent is carefully considered by industrial concerns in preparing their costs, it will be seen that two per cent, or more, is a proportion of actual loss requiring the very closest attention, and the keenest interest on the part of everyone handling freight.

Chairman:—

I think Mr. Jackson has proven to us all, as railroaders and supply men (because you are interested in what the railroad gets), that we are having a hard time in getting a dollar from the public and we want to keep all we get.

Mr. Norman Holland:—

Years ago, when Mr. Cassatt was president of the Pennsylvania Raidroad, he issued an order that if there was any man on the system who had never had a mark against him for 25 years or upwards, he should be brought personally to his office as he would like to meet him. The only man they found was an old negro at a junction point. He had been there 35 years without losing a day and without having a demerit mark. He was brought to Mr. Cassatt's affice and asked "What is your name"? "Boss, my name is Sambo." "And where do you work"? "Boss, I'se at Bethlehem Junction." "What is your work"? "Boss, when all dem passenger trains comes in, I takes a

little hammer, and I goes along and I tap the wheels." "And you have been 35 years with the road and never had a demerit mark"? No, boss, I has neber done nuthin' wrong." "You say you tap the wheels; just why do you do it"? "Boss, to tell de truth, I'll be damned if I know."

Similarly this question of damage is largely a matter of education. If the railroads held these committee meetings and classes, they could perhaps educate their men in such a way that the losses would be largely cut down. A shipper can do a great deal to help the railroads. About six years ago we had a paper along these same lines. At that time I made a remark that my own company had never had a claim against a railroad for outward freight. When we went into business, I made up my mind that it was possible to put out a perfect package with perfect marking. We spend about 60% more on our packages than the ordinary varnish concern and never send a package out without its address in full, stencilled on and not written by hand. At the start, we had a little trouble with incoming freight. We put a stop to that by refusing to do business with concerns who did not ship to us in good packages and we told them that if they would not put up good packages, we would place our business elsewhere. In twelve years, we have never had a claim against a railroad for outgoing freight of any description. In the first four or five years we had some claims for incoming freight. This gradually dwindled down until in 1919 we only had one claim for incoming freight. In 1920 and 1921 we did not have a claim. We had a clean sheet. There was nothing on the file for these years. If all shippers will do that, the railroads will have no trouble. These figures should carry a little weight, as last year we shipped 1¼ millions dollars worth of goods and brought 1 million dollars worth.

Mr. W. J. Uren:—

Mr. President and gentlemen, I am sure we are all greatly indebted to Mr. Marshall for the detailed information he has given as regards what Loss and Damage claims mean as an item of expense in the operating of a railway. Personally, I fully realize what that means. It requires everyone to do all he can to pay particular attention to the different items Mr. Marshall has spoken about, where we fall down in the operating department. It requires the closest co-operation of all the different employees and the efficient co-operation with shippers to bring about

better results. It has been shown that the freight claims account has increased about four times in proportion to the earnings since 1902. It is unfortunate, however, that Mr. Marshall has not the later figures as in 1919 we were probably suffering from the results of the war more than we are perhaps to-day, i.e., we were recovering a great many of our regular men who had been called to the front and have since returned, and I think we are now getting down to a better and more solid basis in operation and consequently a decrease in the proportion which he hasshown. I did not expect to be called on to speak tonight, but I am sure we all appreciate the fact that Mr. Marshall has shown all the details, so that everyone here will go away with some food for reflection and feel the necessity for closer co-operation and paying more particular attention to the prevention of loss and damage claims. I thank you.

Chairman:—

The time has come to close our meting. I am sure I have your permission to extend to the speaker of the evening, our very hearty thanks for his comprehensive paper which he has delivered to us. The next meeting will be addressed by a prominent speaker, who is going to give us a talk on education, with particular reference to ourselves as railroaders. As you pass out, refreshments will be found in the room on your left.

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JAN. 3rd 1922.

G. F. HUDSON
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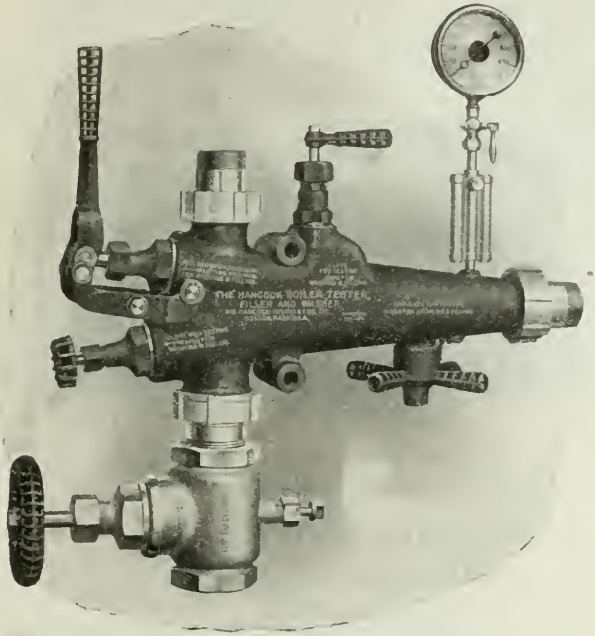

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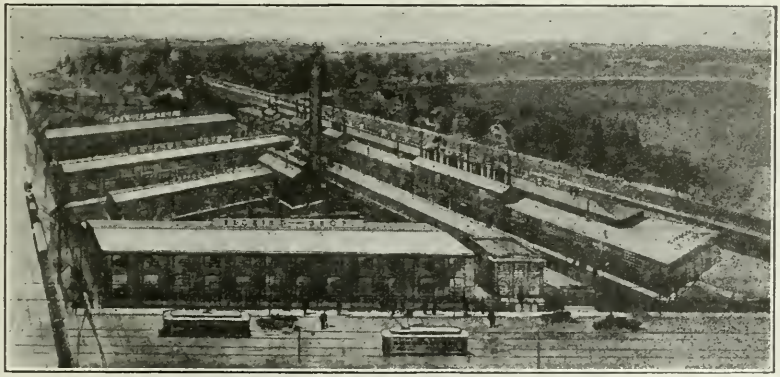

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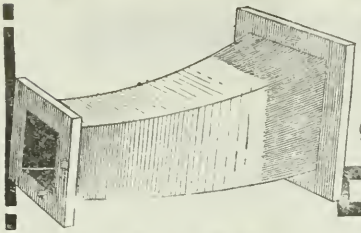

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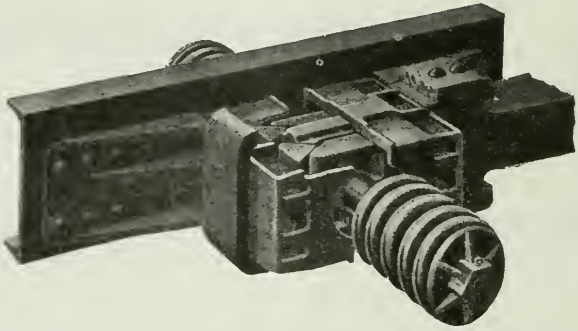

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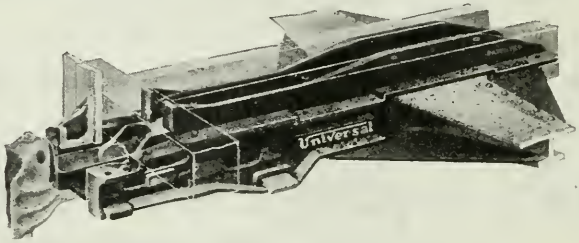

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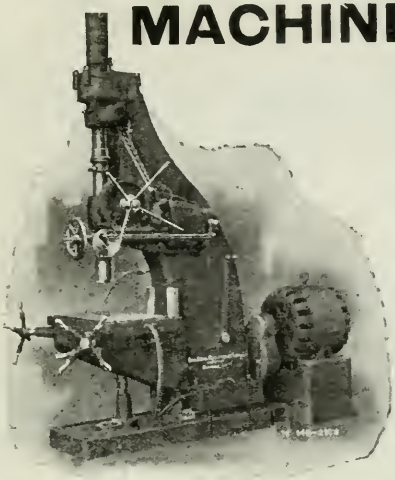

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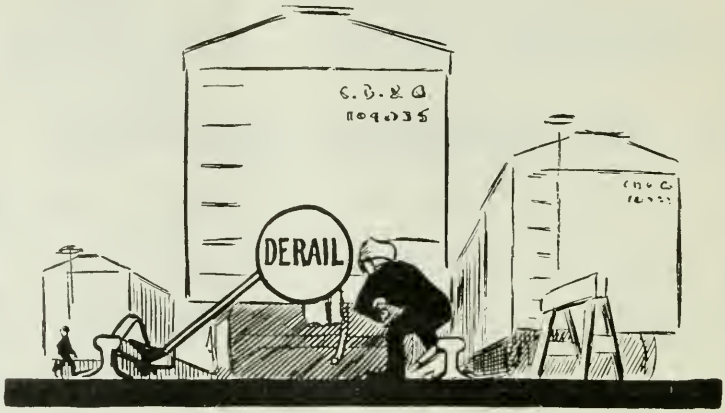

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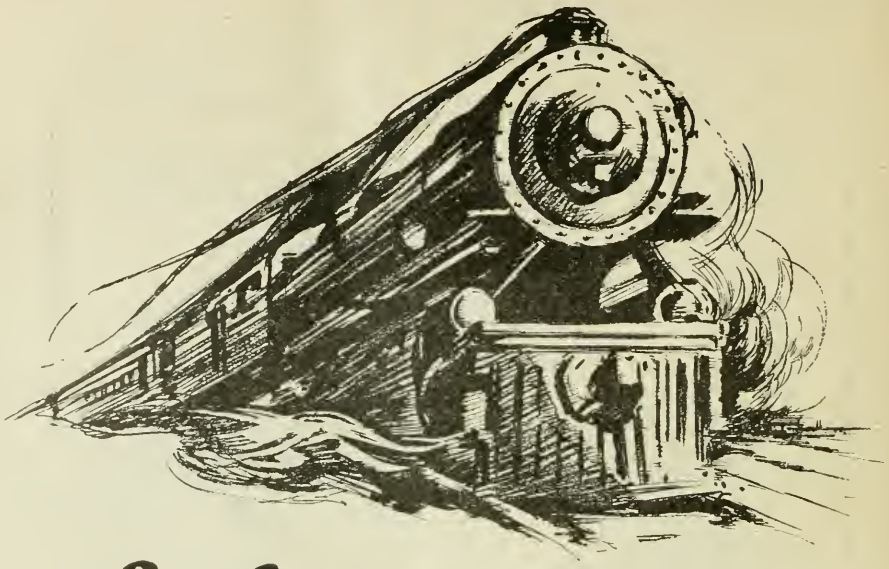

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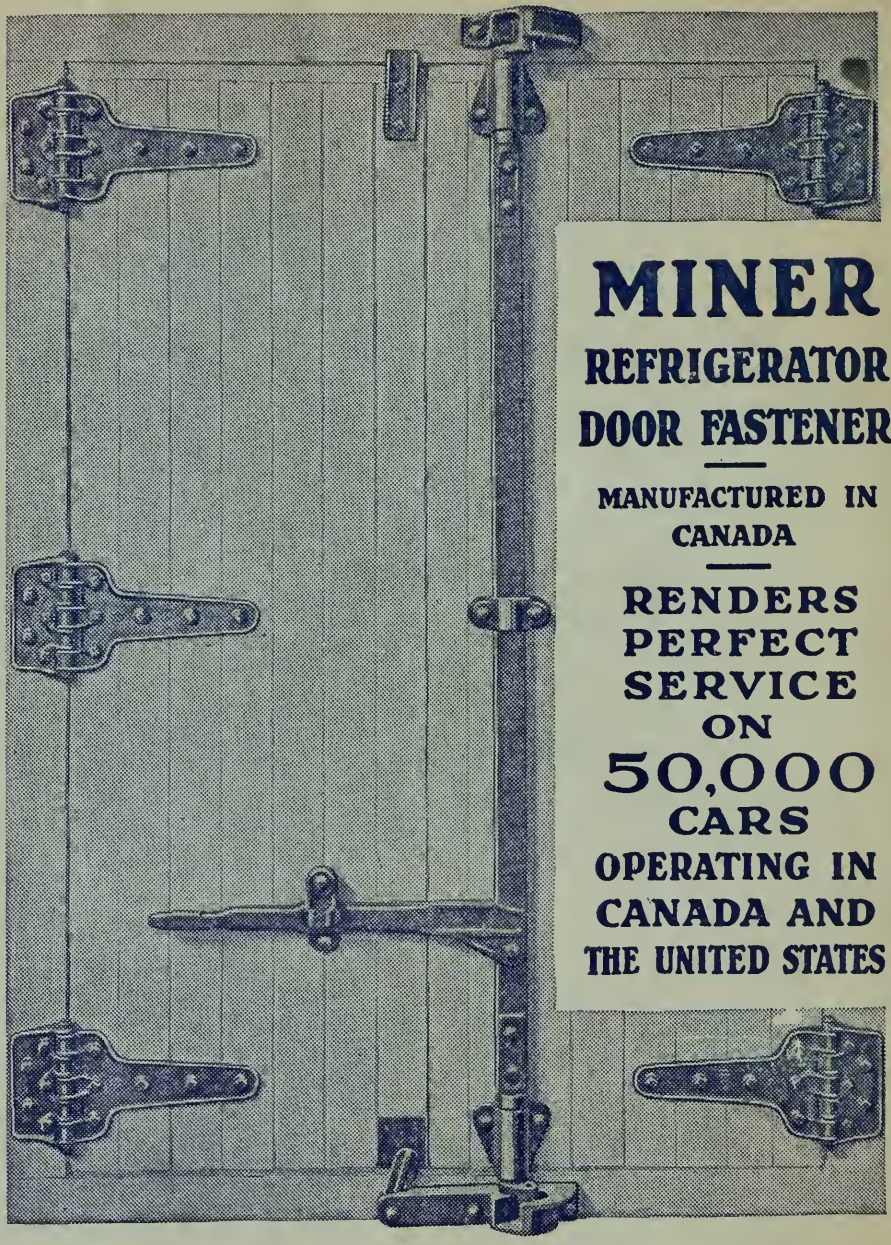

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